State of California

California Natural Resources Agency

Memorandum

Date: JUN 24 2011

To: Joe Grindstaff
Executive Officer
Delta Stewardship Council
980 Ninth Street, Suite 1500
Sacramento, California 95814

From: Dale K. Hoffman-Floerke
Deputy Director
Department of Water Resources

Subject: Comments on Fourth Staff Draft Delta Plan dated June 13, 2011

This memorandum transmits the Department of Water Resources' Department staff comments on the Fourth Staff Draft of the Delta Plan released by the Delta Stewardship Council (DSC) on June 13, 2011.

This fourth staff draft forms a nearly complete picture of the Delta Plan and contains problem statements, policies, recommendations, and performance measures coupled with a more detailed description of many important issues in the Delta.

The Department's comments on the fourth staff draft are provided in the attached document and are organized by chapter, section, page number and line number. Staff has also provided proposed language changes to the plan where appropriate. The Department will also provide comments on the fifth staff draft and the subsequent versions of the public drafts of the Delta Plan as they become available.

If you have any questions regarding the Department's comments, please contact me, or your staff can contact Robert Yeadon, Delta Regional Coordinator at (916) 651-7012.

Dale K. Hoffman-Floerke
Deputy Director
(916) 653-8045

Attachment

cc: Kamyar Guivetchi
Art Hinojosa
Kathy Kelly

Staff Comments on Fourth Staff Draft Delta Plan
Dated 13 June 2011
Department of Water Resources

The following review is provided by staff of the Department of Water Resources (Department) on the Fourth Staff Draft Delta Plan released to the public on 14 June, 2011, by the Delta Stewardship Council (DSC.) This fourth staff draft of the Delta Plan forms a nearly complete picture of the Delta Plan and contains problem statements, policies, recommendations, and performance measures coupled with a more complete background description for the salient issues. Most of the figures and tables referred to in the text are also provided in this fourth staff draft. The Department plans to provide additional comments on the fifth draft when it becomes available.

Executive Summary

Page 4, line 43

The statement here "While the Delta provides water for millions of Californians, it is not California's dominant water supply" is incongruous with the statement on page 11, line 30, that "Nearly two-thirds of the state's population depends on the Delta and these conveyance facilities for some portion of its water supply..." Please clarify these statements.

Page 5, lines 7 - 13

Consider revising this paragraph to: "Water supplies exported from the Delta are currently at risk and must be made more reliable, because many regions are dependent on these supplies for some or all of their needs. This aspect of reliability is currently the focus of the Bay Delta Conservation Plan effort to develop a longer-term solution to improved reliability of Delta water for users of the state and federal water projects, which include historic investments in the Delta ecosystem to aid species recovery. The Delta Plan supports the timely completion of the Bay Delta Conservation Plan in a manner that complies with the Delta Reform Act. The Delta Plan also identifies water storage as a key element of adding flexibility and reliability to the Delta system. Additional efforts may be needed for regions wholly or substantially dependent on Delta supplies which have limited or no other alternatives."

Page 5, lines 1 - 6

This section should briefly mention the importance of the conjunctive use of ground and surface water supplies as a means to "reduce reliance on the Delta."

Page 5, line 17

Please insert the word 'net' in this sentence "... considered that minimize net reverse ..."

Page 5, lines 14 – 41

Discussion is provided on establishing flow objectives, restoring the natural flow regime and adequate habitat for native species, and requiring 200-year level of flood protection for all major subdivisions outside of existing communities. These are important issues to the Department, and comments are provided below on these topics under each Chapter where they are discussed in the Delta Plan.

Chapter 1 The Delta Plan

General Comments

Consistent with Water Code (WC) 85300(a) and 85067, the Delta Plan should consider each of the strategies and actions identified in the Delta Vision Strategic Plan and the Delta Vision Implementation Report.

The Delta Plan should also cite the legal definition of the Sacramento-San Joaquin Delta (California Water Code Section 12220) and the Suisun Marsh (Public Resources Code (PRC) 29101).

Page 10, lines 9 – 18

Mention should be made here that the Delta Plan also builds on the Delta Vision process.

Current Conditions

Page 11, lines 11 – 18

California must also rely on "a system of reservoirs upstream of the Delta" in part because most of our precipitation falls in the northern part of the state, while most of the State's population resides in the southern part. The text should mention this.

Page 11, lines 45 - 47

Since this paragraph deals with data gaps rather than all obstacles to achieving statewide water supply reliability, consider the following revisions: Significant data gaps

exist about actual water use and water quality which may affect the ability of California's water managers to make timely decisions. Since 1914, the State Water Resources Control Board (SWRCB) has issued permits to water diverters in the Delta, but actual annual diversion amounts are not currently known. Owners and operators of nearly one-third of irrigated lands in the Delta watershed do not participate in programs to meet water quality standards, and their compliance with the State law is unclear. Although groundwater and surface water are often interconnected, the SWRCB does not currently regulate groundwater, and there is little data regarding the connection between groundwater and surface water. Groundwater is sustainably managed in some areas of the state, but other areas suffer from unsustainable overdraft and require improved management efforts. Groundwater monitoring across California is improving but is still insufficient for understanding statewide groundwater use and regional water balances and their effect on water supply reliability.

Current Planning Processes

Page 14, lines 1 – 5

Please include the *Suisun Marsh Management Plan* and *California Water Plan Update* in the list of additional plans.

Page 15, Table 1-1

Please add the referenced footnote "f" to the table. Footnotes "b" and "e" reference information from either a workgroup or a council. Information included as a reference in the Delta Plan should be based on peer reviewed scientific facts and probabilities.

Also, invasive species impacts should be included in the Table 1-1 as an anticipated change affecting the Delta in the future.

Page 15, line 11

Please replace "overall" with "as a percent of total water use."

Page 15, line 23

Please insert "eco-tourism" after "environmental stewardship."

Use of Adaptive Management

Page 19, line 15

Reconsider the statement: "Management decisions are often made with incomplete information." Scientific knowledge is always incomplete (it's the nature of science), so management decisions based on scientific knowledge will always be made on incomplete information. If the author meant that management does not have access to the information that is available, then that is a separate issue. Consider the possible re-wording: "The scientific body of knowledge of the Delta and California's water conditions is constantly growing and changing, therefore Delta-related resource management decisions may need to be re-evaluated and updated as new scientific information becomes available."

Page 20, Figure 1-2

Figure 1-2 does not correctly identify all of the Delta Watershed Area. Parts of the southern Central Valley, including agricultural drainage, may enter the San Joaquin River. Additionally, "during extremely heavy runoff, flood flows in the Kings River reach the San Joaquin River as surface outflow through the Fresno Slough" (Tulare Lake Basin Plan, page I-1, see: http://www.swrcb.ca.gov/rwqcb5/water_issues/basin_plans/tlbp.pdf.)

Page 21, Figure 1-3

The legal delta boundary provided in this figure incorrectly includes the Suisun Marsh and should be revised.

Chapter 2 Science and Adaptive Management for a Changing Delta

General comment

How are these management objectives for Science and Adaptive Management, to be adopted or included in existing funding programs that have influence over much of the Delta? There is no discussion provided for the expected DSC process or outcome of this guidance.

Page 25, lines 14 - 17

The Department has practiced adaptive management on many of its projects in recent times. Consider the following revision: Decisions regarding Delta water and resource management have been considered in the context of adaptive management for years, but future actions can be improved by wider and better use of adaptive

management concepts. The Delta Plan calls for more effectively using adaptive management for planning, doing, and evaluating and responding to actions that affect Delta ecology and water operations.

Page 25, line 30

Please include guidance on the process for deciding when and how often to revise the plan. Is there a threshold of new information that will merit a revision?

Page 25, lines 25-31 and Figure 2-1 pg 27

Delta Levees Subventions Program and Special Projects will be impacted to cover costs of adaptive management planning and implementation of projects either at the program level or at the local agency level. Incorporating what is the best available science that informs Goals and Objectives into local agency plans, will also add additional costs to these programs. This would not apply to regular levee maintenance work under the Delta Plan.

A Nine-Step Adaptive Management Framework

Page 26, lines 17 & 18, 22 & 23

The text discusses a nine-step adaptive management process. The Department understands the importance of early planning for project implementation. For ecosystem restoration projects, the Council should consider the funding source, size of the project, and participating entities with respect to adaptive management. Line 22 states that the nine steps need not be "rigidly included or implemented," but if a project did not strictly follow the nine steps, there is a possibility that even a small project could be stopped or delayed through an appeal on consistency.

Plan

Page 26, line 29

The concept of a "problem" here is vague. To improve clarity, provide an example of a problem covered by the Delta Plan and how adaptive management will be used to define it and solve it.

Page 26, line 37

The word "Proponents" should be defined. This adaptive management process is for ecosystem restoration and water management, but it is unclear whether the "proponents" are managers, agencies, or private parties. Include what the defined proponents are responsible for.

Model Linkages

Page 27 and page 28

How are existing ongoing programs such as the Delta Levee Subventions and Special Projects going to be incorporated into conceptual models? Will this be done by the program or by DSC Science staff? How should the scale of the program be informed by relevant scientific information, and who will be expected to conduct this work?

Page 29, line 3

Provide an example of what is meant by a qualitative performance measure.

Select and Evaluate

Page 29, line 7

This section states that where there is a high degree of scientific uncertainty, smaller-scale projects or no-action may be the best action. Full-scale action should also be considered if the action can be reversed. For example, a restoration project that can be reversed by simply re-building a levee may be much more appropriate in light of scientific uncertainty than a reduced-scale restoration project.

Page 29, line 12

Reconsider the statement: "The scale of the action selected should be informed by the certainty of the relevant scientific information and account for the potential cost of delaying larger-scale actions." Please acknowledge that sometimes moving forward with large-scale projects is appropriate even with scientific uncertainty. Monitoring and research of a large-scale project may be the only way to reduce uncertainty.

Do

Page 29, line 22

Consider revising the section names for Nos. 5 & 6 to be consistent with the corresponding steps in Figure 2-1. As written, they do not match.

Scientific Research to Inform Delta Decision Making

Page 34, lines 3 – 11

This section on research should provide more of a discussion on applied research with a focus on answering questions pertinent to the most pressing issues that forward the coequal goals of the Delta Plan. General research to build a general knowledge base is less important, especially in difficult fiscal situations.

Page 36, line 4

Please insert "California Council for Science and Technology" after "Ecological Program."

Chapter 3 Governance: Implementation of the Delta Plan

General Comment

It is important to keep restoration projects, development, and other actions consistent with the Delta Plan. The Council needs to carefully consider how the Governance as described is going to be applied to covered actions. Rather than encouraging early planning, consistency, and coordination, the process as outlined in this draft may increase the likelihood of this process becoming burdensome, time consuming, and needlessly expensive to the project proponent. The Plan should clarify whether the Certification of Consistency would be done before, after, or concurrent with the CEQA process. It appears that the certification process could add 6-12 months to a project timeline, especially if there is an appeal or multiple appeals.

General Comment

The Department recommends the Delta Plan include the figures referred to in CWC 85057.5 7(c), since the definition of a "covered action" in some instances is dependent on whether the work is in the areas shown in these figures: Figure 3.1 of Chapter 3: *Draft Conservation Strategy of the Bay Delta Conservation Plan*, August 3,

2009, and Figures 1 to 5, inclusive, of the latest revision of the *Final Draft Initial Assessment of Dual Delta Water Conveyance Report.*

Also, will covered actions include entire programs such as the Department's long-standing Special Flood Control Projects program for Delta levees, or will each project need certification? The Department recommends language to include certification of programs as covered actions.

Definition of Covered Action

Page 44, line 24

Please change "85057(b)" to "85057.5(b)."

Page 45, line 9

Regarding exempted and/or ministerial projects, especially as related to temporary water transfers and water transfers in general, does this exemption cover both pre-1914 water rights and post-1914 water rights? Temporary one-year transfers may have either a pre- or post-1914 right. As written, it is not clear from this section that both of these types of water rights will be covered by the exemption. Additional clarification needs to be provided as to what exactly would qualify for an exemption.

Page 45, lines 11- 13

If the Council is to exclude these exemptions at a future date, a description of the due process of how this would be done needs to be provided. Water transfer participants are looking for more certainty in the transfer process, and a potential policy shift of this type would undermine current efforts by the Department's Water Transfers Program when trying to provide consistency to the process in general.

Certifications of Consistency

Page 45, lines 1 - 10 (and footnote 7 on page 44)

The text discusses CEQA Exemptions and covered actions. The footnote on page 44 states that "CEQA's various statutory and categorical exemptions (which are considered only after the threshold determination of a CEQA "project" is made) are not similarly incorporated by cross-reference in the definition of covered action." As it stands, projects will have one set of exemptions under CEQA and one set under the Act, and in some cases the same word will have different meanings (as in line 1). It is the Department's understanding that any ministerial act is not considered "ministerial" under the Council's definition unless the statute or action governing the act has been

declared to be consistent with the Plan. Does this mean that all existing statutes, ordinances, contracts, etc. would need to have a consistency determination? Would SWP contracts or the current Biological Opinions need a consistency determination?

Page 45, lines 16 - 42

This entire section has a potential of adding large amounts of time and cost to any proposed project that is a covered action. This section needs to define better how and when this will fit in with CEQA requirements and permitting issues that these projects face.

Page 45, line 19

The checklist described should be included for review and comment in the fifth version of the Delta Plan.

Page 45, lines 23 -- 24

Please provide a description of the timelines associated with the appeal of a certification of consistency.

Page 45, lines 28 – 36

This paragraph provides a good discussion on covered actions that may not meet full consistency with all relevant policies and provides an avenue for the Council to still make a finding of consistency. The Department believes this is an important component to Governance, because there may be many covered actions that do not necessarily meet full consistency requirements (or are neutral) but overall benefit the Delta.

G P1 Certifications of Consistency

GP 1, page 47, lines 2 – 13

Requiring all covered actions to use "best available science" without well-defined standards could allow opponents of projects to easily challenge consistency findings of projects and ultimately lead to costly delays in project implementation. If a project adheres to the science used in complying with CEQA (or NEPA if applicable) this should be sufficient. No additional scientific investigation should be required to determine if the project has a significant impact on the coequal goals of the Delta Plan.

The adaptive management process may be more relevant to ecosystem restoration projects or complex engineering projects where there is much more uncertainty about predicted outcomes (and performance measures) than those projects related to more simple flood control or simple engineering projects. A levee rehabilitation project (such as a landside berm) may not need a rigorous adaptive management program; however, it may certainly be warranted for a large new intake structure in the Delta. The adaptive management process should be designed to separate out and streamline the more straight forward engineering projects, especially smaller, less complicated projects. The CEQA document associated with a proposed project could be used to determine the complexity and uncertainty that could be a gauge for the need for an adaptive management plan. (For example, a project exempted from CEQA or having a simple negative declaration would not necessarily need a rigorous adaptive management plan.)

In establishing consistency of "covered actions" with the Delta Plan, how will the Delta Plan address the cumulative impacts of the covered actions on the Delta Plan? How will the Delta Plan address possible conflicts between covered actions, even when the actions separately may not be in conflict with the Delta Plan? Will the first covered actions that are accepted by the Delta Plan become part of the Plan, and, therefore, subsequent actions must be consistent with it?

More consideration needs to be given to this policy relative to specific projects. This is especially true for small projects. For example, a local reclamation district may have to mitigate for losses of just a few trees that would typically be done on-island. Should this project be responsible for the development of a costly adaptive management plan? The same is true for a small-scale water management project.

Page 47, lines 7--13 (also: Pages 19, lines 27-- 30; Page 25, line 26)

The requirement for a full adaptive management plan, documentation of access to adequate resources, inclusive of financial assurances, prior to a determination that a restoration plan is consistent with the Delta Plan may have the unintended consequence of halting most habitat restoration efforts. Small restoration projects may be financially infeasible because of this burden, which will impact mitigation and enhancement efforts of DWR's Delta Levees Program. Large restoration projects, such as Dutch Slough and McCormmack/Williamson, whose funding is most often secured in increments, will also not be consistent with the plan. While the concept is laudable, the implementation of these requirements as part of a consistency determination will serve to slow or halt restoration in the Delta.

Transparency

Page 48, line 21

Please consider the following clarification: The Council retains the authority upon appeal to find the covered action inconsistent with the Delta Plan.

Page 49, lines 6-7

The Department recommends modifying the language that "information... provided to the Council will be publicly accessible on the Council's website." Some data may be sensitive or critical for security reasons or simply need additional validation prior to release to the public.

Chapter 4 A More Reliable Water Supply for California

General Comment

The Plan should mention somewhere that Senate Bill 2X 1(SB 2X 1) authorized the Department to perform a system reoperation study to identify potential reoperation strategies of the State's existing water supply and flood protection systems that will optimize the use of existing facilities and groundwater storage capacity. Appropriate climate change scenarios will be incorporated in the system reoperation study. System reoperation refers to changes made to existing operations and management procedures to achieve a certain objective(s). The following are objectives of the System Reoperation Program as defined by SB 2X 1:

a) Integrate flood protection and water supply systems to increase water supply reliability and flood protection, improve water quality, and provide for ecosystem protection and restoration.

b) Re-operate existing reservoirs, flood facilities, and other water facilities in conjunction with groundwater storage to improve water supply reliability, flood control, and ecosystem protection, and to reduce groundwater overdraft.

c) Promote more effective groundwater management and protection and greater integration of groundwater and surface water resource uses.

d) Improve existing water conveyance systems to increase water supply reliability, improve water quality, expand flood protection, and protect and restore ecosystems.

General Comment

Discussion in this Chapter includes sustainable groundwater management and improved surface storage options. Consideration should be given to the concepts of protecting and restoring enhancing upper watersheds where the major snow storage and water supplies for surface storage come from. Statements are made about the Sierras being the largest "reservoir" based on the snow accumulation, but it leaves out the actions that could protect, preserve or enhance the ability of the Sierras to provide that snow pack. Need to discuss opportunities to work with the land management agencies in those regions (e.g., USFS, NPS, State Parks, and Conservancies) to do more to protect those upper watersheds for water supply and quality and reliability justifications. Consider Sierra meadows restoration research as a small model of the benefits of restoring upper watershed conditions to water supplies and runoff timing. This comment could be carried over into Performance Measures and reporting recommendations.

Page 55, lines 9 – 16

This paragraph discusses precipitation and consumptive uses in California. However, the last sentence mixes the two and the message is unclear.

Page 55, Lines 10-11 and line 17

These lines appear to be conflicting, with one stating the precipitation has been roughly constant over 100 years and the other lines stating that variability is the dominant characteristic of California's water resources. Consider elaborating to avoid apparent inconsistency.

Page 55, Line 18

The Delta Plan states that "The State has a Mediterranean climate..." This should be revised to clarify that parts of the state have a Mediterranean climate, but other parts do not (e.g., the Sierras, the Cascades, Death Valley, the North Coast, etc.)

Page 55, lines 24-30

There needs to be a discussion on flood conveyance system uses and public safety uses/demands of the system. Also there should be a discussion of the scope of impacts to the environment from development and operations of the water supply/flood conveyance system on the rivers that feed into the Delta.

Page 55, line 25

Please insert "and Delta levees" between "facilities" and "that".

Page 57, line 5

Please insert text starting with line 5: "The Delta levee system plays a key role in the effective operation of the State and federal water system. This system, which delivers Delta water to other locations in the State where it is needed, must move fresh water through an environment that is connected with the San Francisco Bay and the ocean. Under natural conditions, the Delta environment would be brackish at certain times of the year, making it impossible to use the existing channels to convey fresh water to the export system.

The Delta levee system has a number of effects that facilitate export of fresh water. One effect is that the levees confine the water to specific channels leading from fresh water sources in the Sacramento River and San Joaquin River to the export facilities in the south Delta. This allows existing channels to be used for conveyance of fresh water to the pumps. Another effect is that the Delta levees limit the tidal range and allow the location of the interface with salt water to be controlled, thereby serving an important function in preventing salt water contamination of the fresh water for local and export water supplies."

Page 57, Lines 15 and 16

The text should cite one or two examples of "some suppliers and areas [which] depend predominantly on Delta [water] exports."

Page 57, lines 12-13 and lines 17-19

The text includes two statements. Lines 12 -13 state: "...this consideration is important for evaluating how the State can best improve water supply reliability while reducing reliance on the Delta." Lines 17 – 19 state: "...concerns about the decline in the Delta's ecosystem, greater drought impacts, increased flood risk, impaired water quality, aging infrastructure and climate change - making the need to find new and better ways to develop and share water supplies while reducing reliance on Delta exports becomes paramount."

There appears to be a conflict in intentions of the Plan as shown in the two statements above. How does the Delta Plan intend to affect both increasing reliability of water from the Delta while also reducing the reliance on the Delta for water supplies? This should be discussed in terms of BDCP expectations and objectives creating

greater water supply reliability through improved Delta export conveyance systems and how this reduces water demands on the Delta.

Page 58, line 7

Please insert two additional bullets after line 7:

- Maintain through-delta conveyance
- Preserve delta water quality for internal and export uses

Page 58, Figure 4 - 2

A complete table of 2004 Water Use including statewide and regional data is provided as an attachment to this document for the Council's reference.

The figure shows water use for 2004 and it is assumed to be average. Precipitation in 2004 was about 94 percent of the 30 year average. This should be footnoted.

In the 'Water Use – 2004' pie chart, the percentages are correct using the non-instream use totals. (The total use and outflow applied water of 83.7 million acre-feet (MAF) minus the Instream, Wild and Scenic, and Required Delta Outflow applied water of 36.5 MAF, leaving a total, non-instream use of 47.2 MAF. This should also be footnoted.)

In the 'Water Supplies – 2004' pie chart, comparison of water supply categories to the total supplies (83.7 MAF) rather than the non-instream total of 47.2 MAF changes the percentages (see below.) This should be clarified.

Of the instream water supply (36.5 MAF), 32.7 MAF are local deliveries and 3.8 MAF are from other sources, primarily the CVP and return flows. There is another effect of removing the instream water supplies from the total supplies. Much of the reuse water used by agriculture and managed wetlands comes from instream uses. The Department counts the instream and wild and scenic applied water that is not depleted (to salt sink or evaporation) as return flow to developed supply. In the reuse and recycled water category below, about 0.4% is recycled and the 7.6% reused.

The numbers and captions below more accurately reflect water supplies in 2004 using the non-instream total:

Local Deliveries – 40%,
Local imported deliveries – 2%
Colorado River Deliveries – 10%
CVP Base and Project Deliveries – 10%
SWP Deliveries – 7%
Other Federal Deliveries – 1%
Net Groundwater Withdrawals – 22%
Reuse and Recycled Water –8%

Reduce Reliance on the Delta

Page 60, Figure 4-4

Modify the x-axis label to -- "Agricultural Water Use Efficiency (Net)".

Page 61, line 9

Please revise the sentence to state "... among the agencies, governments and organizations in a single watershed or between interconnected watersheds..." to include all the locations in CA where interbasin transfers are part of the supply systems.

Page 61, line 11

Please insert " per year" after "1.2 million acre-feet."

Page 61, line 16 and footnote for Figure 4-5

Please change "gross water use" to "average annual applied water use."

Page 61, line 16

The text states that: "Agricultural water use today accounts for 77 percent of the state's gross water use". Please provide the source of this important statement. Does it refer to developed water use, or total water use?

Page 61, lines 20 and 21

The phrase "a 20 percent reduction in urban water use by 2020" should be changed to "a 20 percent reduction in per capita urban water use by 2020."

Page 62, lines 4 - 6

Consider the following changes to the text: "With the enactment of the Delta Reform Act, the policy of California to reduce reliance on the Delta to meet future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency has been strengthened." (Water Code section 85021).

Page 62, lines 26 - 29

Consider the following revisions to this paragraph: "Although some water suppliers are making significant progress in implementing these requirements and reducing their reliance on the Delta, others still need to make more progress towards doing their share in helping to achieve this statewide goal. Better compliance with existing State laws and continued planning and implementation of additional conservation, water use efficiency, and water supply projects is needed at the local and regional level to demonstrate reasonable use of existing water supplies and provide a more reliable water supply for California."

Page 62, line 31 to Page 64, line 29

The text should indicate if references to "public agencies" and "water suppliers" include federal agencies and federal water suppliers, such as the US Bureau of Reclamation (USBR.)

Policies

Page 62, lines 32-42

The Department recommends revising the language in this section because the format is confusing. It states that if a covered action meets "A" or "B", it is inconsistent with the Delta Plan and WR P1 and WR P2 become polices; otherwise, WR P1 and WR P2 are recommendations. However, a covered action that is inconsistent with the Delta Plan would be denied. Therefore, WR P1 and WR P2 are not policies for any action that would meet approval with the Delta Stewardship Council.

Page 62, line 35

While temporary water transfers (which are majority of water transfers that the Department reviews) are considered exempt in Chapter 3, it appears that this policy will apply to water transfers of durations longer than one-year. However, this is unclear and needs to be specified as to what types of water transfers this section is addressing. Until

clarification has been provided, it remains unclear how this would impact the Department's Water Transfers Program.

If the intent of this section is to address longer-term or programmatic water transfers, would agreements such as the Yuba River Accord fall under this? If so, would it impact the year to year operations of the Yuba River Accord, which has already been approved?

In addition, review and verification for requirements in WR P1, P2, and P3, would probably add substantial time to processing a water transfer. This seems contrary to the directives given in the past to try to streamline and expedite the water transfer process in order to help with water supply reliability. It is also unclear as to who would provide the level of review needed and how this would be accomplished given the current budgetary constraints.

Page 63, lines 5 - 7

The language in the text is not quite consistent with Water Code Section10608. SB X 7-7 set a statewide goal of a 20% reduction in urban per capita use by 2020. Section 10608 et. seq., directs suppliers to set water use targets for 2020 using one of four different target calculation methods. Many of supplier's targets will require far less than a 20 percent reduction. Consider the following revision: "Adopt and implement a plan to achieve supplier's water use target by December 31, 2020..."

Pg. 63, Footnote 10

This footnote uses the definition of urban retail suppliers from SB X7-7 which is slightly different than the definition in UWMP Act (Water Code Section 10617). SB X7-7 references "end users" while the Act references "customers". The Department has long defined customers to be connections. For consistency purposes consider using the section 10617 definition.

WR P2, page 63, lines 27 - 30

This policy requires a plan for possible interruption of Delta water supply. As written this plan would require a supplier to describe how it would handle an interruption in supply from the Delta for 3 different hydrologic situations (average, single dry, multiple dry) over 3 different time periods (6, 18 and 36 months), meaning that suppliers have to develop 9 different interruption plans in addition to the current water shortage contingency plan that is required in the UWMP. Since the already required water shortage contingency plan (shortages up to 50%) would already cover most of the interruption scenarios, the Department recommends limiting the delta interruption plan to only account for worst case (multiple drought years with a 3 year interruption).

Page 64, line 5

Footnote 13 at bottom of the page is missing.

Updated Delta Instream Flow Criteria and Setting of Flows

Page 65, line 23

Consider the following revisions to more accurately reflect the State Board's role: "During the 1970s through the 1990s, as competition for California's water supply ~~has~~ intensified, the SWRCB was at the center of political disputes over how its decisions on water allocations should be made. In the mid-1990's the focus on fishery issues shifted to endangered species and the federal and state agencies charged with protection of endangered species. The State found itself in an increasingly unsustainable situation with native fish populations crashing and reduced reliability of water exports from the Delta. In the future the SWRCB will be required to become more involved in the resolving issues in the Delta.

Page 65, lines 29 – 34

This paragraph provides a discussion of establishing flow objectives and criteria for the Delta and major Delta tributaries by the State Water Resources Control Board. Although this is critically important, establishment of flow objectives must consider all beneficial uses including agricultural and municipal water supply along with environmental needs. Additional comments are provided under ER P1below.

Expanded Statewide Water Storage and Improved Conveyance

Page 66, line 40

BDCP may consider improved storage in addition to conveyance.

Pages 66 - 67

There is significant discussion on regional and statewide storage projects; however, there is not a clear distinction in the text. A definition should be provided.

Page 67, lines 19-24

Please include a bullet for "improved floodplain floodwater storage/detention and release systems to increase water storage management flexibility in reservoirs." Also, please identify the improvement in water supply reliability by increasing flexibility in flood storage in reservoirs (reservoir rule curve changes) and on floodplains (increase

floodplain access in the current river conveyance system) to maximize water supplies in reservoirs and utilize floodplain storage to temporarily store excess floodwaters.

Page 67, line 33

Please add 'storage' after the word surface.

Page 67, line 30 and Page 69, line 27

The Plan mentions five CALFED Surface Storage projects and that the Department should complete the studies. The Department's participation in the In-Delta Storage Program was suspended in July 2006 when state funding for the program ended. The Department's participation in the Shasta Lake Water Resources Investigation is limited due to California Public Resources Code 5093.542 and state funding for the program ended in 2005. The Upper San Joaquin River Basin Storage Investigation is lead by the Bureau of Reclamation. The Contra Costa Water District Board certified the Final EIR for Los Vaqueros and approved Alternative 4 (expansion to 160 TAF) on March 31, 2010. CCWD is moving forward with design and construction of the 160 TAF expansion; construction began in early 2011. With additional funding, local, state, and federal partners may choose to continue to study the feasibility of a 275 TAF (total) alternative for this project in the context of other Delta initiatives to improve Delta conveyance and better protect Delta fisheries, including long-term programs being explored in the BDCP.

State, federal, and local partners are evaluating the feasibility of offstream storage north-of-the-Delta in the northern Sacramento Valley to improve water supply and water supply reliability, increase the survival of anadromous fish (and other aquatic species), improve Delta water quality, and provide flexible generation benefits to integrate renewable energy generation into the electric grid. The Department will prepare an EIR/EIS and Feasibility Report for Public review in early 2012.

Page 67, line 36

Please insert "per year" after "21 million acre-feet".

Page 68, Inset Box - Water Transfers

While this graphic from the California Water Plan Update, 2009, is an accurate description of what the Department currently considers for water transfers at both the Department and USBR, it does not appear to be tied to any specific reference or text in the document. Is this what the DSC proposes to use as the definition for a water transfer within the Delta Plan? If this the case, it needs to be made very clear that this is how the DSC is describing a water transfer as water transfers are mentioned quite

frequently within the Plan. There needs to be a discussion included where water transfers are described more fully in this plan.

Also, a sixth source of water for transfer should be listed: The fallowing or temporary idling of irrigated farmland, so as to make available for transfer the water which would have been applied to that land.

Page 69, lines 7-13

Consider emphasizing the protection of upper watersheds and meadows (Sierras) as major "reservoirs" of water supply system for clean water and improved reliability through restoration and large-scale watershed protection. Consider recommending use of the New York State model of watershed source protection as a cheaper and more reliable water treatment and supply infrastructure. This would link the Delta supplies to the source. Ecosystem processes can help optimize water reliability from natural systems and assist in storage and water quality benefits.

Page 69, line 17

Please insert "regional or local agencies" after "years for the State."

Recommendations

WR R6 page 72, line 27

Please insert" and State Water Resources Control Board" after "The Department of Water Resources."

WR R6, page 72, line 30

Please remove "and other best available science" and replace with "and a collaborative public process that considers the needs of the people dependent on the groundwater basin and the alternative water sources available to them."
(Consider the definition that DWR used when it last identified basins in critical conditions of overdraft in a 1979 process that involved 25 workshops, statewide, and four public hearings:

"A basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts."

WR R8, page 73, lines 3 - 4

Please remove "SWRCB should take action...with Water Code sections 2100-2101" and replace with "The Department should identify funding sources that may be used to assist the region overlying the basin with the implementation of an Integrated Regional Water Management Plan that includes a strong water supply reliability component."

Page 73, lines 42 & 43

The statement, "The information from these [Urban Water Management Plans] is important, but it is inaccessible and consequently virtually useless..." is an exaggeration. Instead, the text should recommend that the valuable information in those plans should be made more accessible to planners, researchers and water managers, both within and outside the Department.

Page 74, line 2

Consider adding a recommendation, WR R11 that states that the SWRCB, or the Legislature, designate the use of surface water for groundwater recharge as a beneficial use to encourage development of additional groundwater recharge projects.

WR R9, page 74, lines 24 – 37

Water PIE is not an integrated data base, rather a data exchange portal. DWR will not collect data from others for Water PIE, rather Water PIE enables users to access data from multiple data bases/websites in a consistent way.

Driver Performance Measures

Page 76, lines 23 – 25

We believe the second bullet is an outcome Performance Measure. Also, it is unclear how actions under this plan would reduce exports from the Delta.

Outcome Performance Measures

Page 77, lines 11 - 13

The second bullet is more likely a Driver Performance Measure.

Chapter 5 Restore the Delta Ecosystem

Introduction

Page 83, line 30

Consider including "... which important ecosystem features or functions may have been changed, degraded, or lost, and which of these can be restored. (Many cannot be restored as mentioned in Appendix D.)

The Historical Delta Ecosystem

Page 84, lines 14 -- 19

This description of the Delta provided in this section does not include the Suisun Marsh as shown in Figure 5-1. Consider adding a discussion of the marsh.

Creating a More Natural Flow Regime

Page 87, lines 3 – 6

It is understood that water flows more closely reflecting historical flow conditions are best for native communities. Flow is the major driver in an aquatic system, and a natural historic flow regime is what native species have adapted to. However, the addition of more flows to a highly channelized system, like the Delta, might not return the expected benefits. The system is now severely altered, and establishing a regime that mimics or restores historical flows may not accomplish much except to move more water through the Delta more quickly. Most of the benefits to native communities, associated with flow, results from the reconnection of land surfaces to the water (wetland formation, increased residence time, increased productivity, increased food supplies, increased nutrient transport, increased carbon production, etc.) This is very evident in a natural system. In a highly channelized system, however, velocities are increased as flow increases, and there is not a proportionate increase in the interface between land and water. Therefore, flow objectives need to be established in concert with land use change proposals. Flow objectives should not be established in the absence of information on the types and quantities of habitat being proposed under BDCP. Flow objectives should be established based on all beneficial uses of the water otherwise weight is given to one coequal goal over the other.

Without establishing more areas that can take advantage of the higher flows (e.g., Yolo Bypass, upper Liberty Island), the higher flows will only put more stress on established levees (higher head pressure and velocities). The establishment of higher or more natural flows should reflect the establishment of habitat that can take

advantage of the seasonal high flows (and the seasonal low flows). Developing the habitat and historical flows concurrently would be extremely difficult but nonetheless necessary.

There are also many reasons for not having historical flows. Flood prevention, irrigation water in August, drought mitigation and freshwater in the Delta are all advantages of an altered flow regime. In terms of the Delta and natural flow regimes, there will be associated impacts to Delta agriculture, in-Delta water supplies, and flood control facilities.

Page 87, line 17

Please include "...migratory and life cycle cues of many native fish species" in this bullet.

Flow is Both Volume and Timing

Page 88, Inset Box

The number one principle states that flow determines physical habitat. This is not necessarily true in the Delta where the channels have been hardened to prevent flooding. (Refer to comment on page 87, lines 3 – 6 above.)

ER P1 & ER R1, pages 88 & 89, lines 8 – 22 and lines 1 – 7 respectively

Policy ER P1 is vague in that it allows the Council various options if the recommendations in ER R1 (where the State Board is to establish flow objectives for the Delta and major tributaries by 2014 and 2018, respectively) are not met in a timely manner. This leaves the regulated community with a great deal of uncertainty with respect to covered actions after June 30, 2013. This should be revised to delete possible future actions by DSC and state that if flow objectives are not revised by those dates, DSC will consider appropriate response actions at that time that are consistent with the Delta Plan.

Also, is it the Council's intent to declare that projects that impact flow objectives in the Delta, as well as in the major tributaries, will be considered covered actions once the State Board establishes flow objectives?

ER P1, page 88, lines 19 – 22

Proposed Policy No. 2 recommends that the SWRCB cease issuing water rights permits in the Delta and Delta watershed (...). The DSC needs careful consideration with this policy because this recommendation could undermine planning for

groundwater recharge projects. Under certain hydrologic conditions, excess surface water becomes available in the watershed that can be taken without harm to the Delta or other users. That water could be used for groundwater recharge.

ER R1, page 89, lines 1 – 7

The Delta Plan should acknowledge the Department of Fish and Game's role in determining flow criteria (CWC 85084.5).

Additionally, the Sacramento-San Joaquin Delta Reform Act of 2009 requires the State Board to develop flow criteria to meet the coequal goals, but this does not supersede federal requirements. In 1995, the Federal Register promulgated salinity (X2) requirements into the Code of Federal Regulations (CFR) Title 40 Part 131.37. These federal X2 requirements should be addressed in the Delta Plan. If the State Board's study indicates different flows are needed to meet the coequal goals, how does the Delta Plan propose to proceed in compliance with federal law?

Improving Habitat

Page 90, line 1

Most ecologists would not consider largemouth bass as a desirable nonnative species. Economically, the largemouth bass are desirable to anglers. Clarify that an economically desirable fish is not necessarily ecologically desirable, or choose a nonnative species that has less impact to the ecology of the Delta.

ER P4, page 91, lines 17 – 21

This policy requires evaluation and incorporation (where feasible) of alternatives, such as setback levees, that increase the extent of floodplain and riparian habitats for new levee and large levee rehabilitation projects. Since this would become, in effect, a regulation, would these levee projects be found inconsistent with the Delta Plan if Setback levees or other alternatives are not considered? In other words, should a project proposing to place a large landside berm to stabilize the levee be burdened with analyzing setback levees? This policy should be limited to require this analysis only at strategic locations in the Delta such as main stem river channels where the benefits to flood control, wildlife corridors, and salmonid habitat are maximized.

Moreover, complying with the policy stated in ER P4 for all levee projects will add time and expense to these projects. The levees are large, critical structures that are, generally, operated and maintained by poorly financed agricultural interests. Adding financial burdens to levee projects will make flood management in the Delta increasingly more difficult.

Page 91, lines 7 – 35

Please refer to Chapter 5, page 89 lines 11-22 for clarification on the difference between habitat and cover types. Consider a review of the entire document for use of the word "habitat" to make sure it is consistent with the definitions outlined in Chapter 5. In some cases, the author may be referring to cover types, vegetation, communities, or systems. Habitat type refers to a species' needs such as Giant Garter Snake foraging habitat, or a bird's roosting habitat.

Recommendations

ER R2, page 91, lines 22 – 44

Is there a reason that projects at Dutch Slough and Meins Landing were not included in the list of habitat restoration projects in this version?

ER R2, page 91, line 22 - 44

Consider adding a discussion of broad regional habitat goals, such as a number of acres of Shaded Riverine Aquatic Habitat along the Sacramento-San Joaquin River and tributary channels of the North, central, South, East, West Delta; a number of acres of fresh water and tidal wetlands along the channels of the Delta; and more variable salinity gradient through the Delta & Suisun related to more natural flow regime patterns.

ER R3, Page 92, line 42

Please describe what is meant by "credit" and "credit program" in more detail. What would be the purpose of the credit? Would it be for mitigation? What is the credit based on and is there an allowance to have another impact or land use decision? This needs to be made very clear as to need and purpose.

ER R4, page 93, lines 22 – 25

This recommendation is duplicative of policy ER P4.

ER R5, page 94, lines 1-4

Consider another or substitute recommendation to fund and support research into the engineering and physical process in the context of large trees and root systems affects on levee stability in the Delta. This is supported by the goal of using best available science to inform adaptive management decisions.

The Bay Delta Conservation Plan

Page 95, lines 27 – 29

Please replace the statement starting, "It has the dual purpose of..." with two statements describing BDCP goals and BDCP purposes.

The coequal planning goals of the BDCP are to:

1) Restore and protect the ecological health of the Delta, and
2) Restore and protect water supplies.

To achieve these goals, the BDCP will:

1) Provide for a more reliable water supply for California by modifying conveyance facilities to create a more natural flow pattern,
2) Provide a comprehensive restoration program for the Delta,
3) Provide the basis for permits under federal and state endangered species laws for activities covered by the Plan based on the best available science,
4) Identify sources of funding and new methods of decision-making for ecosystem improvements,
5) Provide for an adaptive management and monitoring program to enable the plan to adapt as conditions change and new information emerges, and
6) Streamline permitting for projects covered by the Plan.
7) Reference: BDCP Highlights document on pg 3 (goals) and pg 17 (purpose), available online: http://www.resources.ca.gov/docs/Highlights_of_the_BDCP_FINAL_12-14-10_2361.pdf

Chapter 6 Improve Water Quality to Protect Human Health and the Environment

General Comments

Agricultural practices impact water quality in the Delta, including the nutrient loading and pesticides levels. The Delta Stewardship Council should consider recommendations for agricultural practices to reduce water quality impacts (e.g., pesticide applications, tail water management, land retirement, etc.).

Erosion from abandoned mercury mines introduces additional mercury to the Delta, but entities interested in controlling erosion at these sites may be discouraged by liability issues. The Delta Stewardship Council should consider adding recommendations to introduce laws to reduce liability of entities that engage in clean-up of these mercury mines.

Where appropriate, the Plan should cite the Water Boards' *Salt and Nutrient Management Plans* required for all groundwater basins as part of its Recycled Water Policy.

Salinity

Page 108, lines 27-28

The location of X2 is defined as the distance from the Golden Gate to the point where the salinity is 2 g/L *at one meter above* the bottom of the water body. This sentence should be revised to reflect that the endpoint of X2 is at one meter above the bottom of the water body, not at the bottom of the water body.

Drinking Water Quality

Page 111, lines 33-36

The Delta Plan discusses the intake for the City of Antioch and how it is frequently out of use because of salinity intrusion. The Delta Plan should also mention the Mallard Slough intake for the Contra Costa County Water District, which is the westernmost drinking water intake in the Delta. It is also impacted by salinity, and therefore mixed with other sources of water.

Page 112, Lines 18-21

The Delta Plan recommends the State Water Resources Control Board and Central Valley Regional Water Quality Control Board require all recipient regions that are supplied water from the Delta or the Delta Watershed or discharge wastewater to the Delta or the Delta watershed to participate in the Central Valley Salinity Alternatives for Long-Term Sustainability Program. CV salts is a non-profit coalition of stakeholder groups. There is no justification for recommending this requirement to water recipients or dischargers. It is the Department's understanding that the CV-Salts group is supporting the removal of salt limits from the NPDES permits of dischargers to the Delta. Since X2 remains a federal requirement; the Department still has to comply with these salt regulations. Therefore, if CV-Salts were to successfully help dischargers remove salinity requirements, it would place much more responsibility for salt control on the Department. To meet X2, operations may need to be altered (reduce pumping or increase discharges from reservoirs) to offset the increased salts from dischargers without salinity limits.

Chapter 7 Reduce Risk to People, Property, and State Interests in the Delta

General Comments

Investments in flood management should be accompanied with appropriate land use restrictions to reduce risks to people, property, and state interests to appropriate levels. Improving Delta levee flood protection to urban standards, particularly in the primary zone, could remove an obstacle to growth and significantly increase risks to more people, property, and state interests. Additionally, projects that induce growth may necessitate additional CEQA documentation and, therefore, additional costs. Legislation barring or limiting new development in the primary zone of the Delta (as an inappropriate land use) would allow investment in flood protection levees without increasing risks to people, property, and state interests. Consider the following:

- Discuss the importance of zoning restrictions, particularly in the primary zone.
- Consider including recommendations to planning agencies to halt future development projects in vulnerable areas of the Delta, including the primary zone.
- Consider adding a recommendation for legislative action to add zoning restrictions in the Delta.

Introduction

Page 133, line 24

The greatest measure to reduce likelihood of flooding in the Delta is implementation of a regular and effective maintenance program for the levee system. Routine risks such as rodents, wave wash, and seepage, if left unattended can cause significant damage to the levee. An active maintenance program corrects any defects in the levee caused by these risks while they are small, reducing the need for more expensive repairs at a later date.

Flood Risk in the Delta

Page 134, line 15

The phrase "sea level rise may reach 55 inches" should be changed to read, "sea level rise may reach 55 inches off the California coast."
Page 134, line17

ARK storm events are very rare and geologic studies show they have occurred six times in the last 1,800 years.

Ongoing Flood Management Efforts by other Agencies

Page 134, line 36 (and again on p 135, line 2)

The FloodSAFE initiative is somewhat mischaracterized by its use/inclusion in these contexts. FloodSAFE (FloodSAFE CA) is not a study. FloodSAFE is an initiative which comprises various efforts including studies of which the aforementioned Central Valley Flood Protection Plan is but a part (albeit a very large one.) Other FloodSAFE efforts pertinent to the Delta Plan include the ongoing development of DWR's Delta Flood Emergency Preparedness and Response Plan.

> *FloodSAFE California is an initiative to improve flood management in the state through a system-wide approach, while carrying out regional projects and enhancing core flood management programs.*

Please replace the simple "FloodSAFE" with "Various studies and projects from DWR's FloodSAFE Initiative"

Page 134, lines 35 – 40

Consider adding a bullet describing the Department's planning process: The Department of Water Resources "Delta Emergency Preparedness, Response, and Recovery Program that consists of: 1) a Plan for preparing for, responding to, and recovering from Delta levee failures; 2) integrating the plan with other Delta flood response agencies,: and 3) designing and implementing preparedness and response facilities."

Page 135, lines 1-2

Consider deleting "and FloodSAFE" so sentence reads "It is important to note that the Central Valley Flood Protection Plan includes many concepts relevant to the Delta Plan; however, it largely focuses on issues outside of the Delta." (See comment above.)

Page 135, lines 5-7 Figure 7-1.

The graphic in the figure is well done, as it conveys a complex concept in a familiar context to the reader. However, the text does not reference the graphic

anywhere. Consider adding the following sentence on page 134, line 6: "...environmental damage. Figure 7-1 illustrates the variables in flood risk and associated consequences. Risk of...." Also, consider adding "Annual Flood Risk" to the title of this figure.

Page 135, lines 12 - 15

Please note that FEMA uses the term "Regulatory Floodway" while the CVFPB uses the term "Designated Floodway."

Page 135, lines 16 – 18

Please note that the Board's authority includes "all lands currently and historically drained by the Sacramento River and the San Joaquin River and their tributaries and distributaries," which includes the Delta and is not limited to the State-Federal levee system.

RR P2 Page 136, lines 25 – 26

Note that this area of the Yolo bypass is already regulated by the CVFPB.

Levee Classifications

Page 138, line 10

The PL 84-99 standard referenced is specific to project levees and appears to be the standard that is referenced thought the chapter. However, there is a Delta-specific PL 84-99 guidance that the US Army Corps of Engineers drafted. Consideration should be given to including this standard as part of the Plan.

Page 139, Figure 7-2

Consider changing the title of this series of figures to "Effect of 20-island failure caused by M 6.5 Earthquake."

Policies

RR P3, page 140, lines 5 – 7

This policy requires covered actions to conform to Table 7-1 where levee classifications and associated land uses are described. The DSC needs to carefully consider the implications associated with this Table. For example, does the addition of one house require a minimum FEMA 100-year standard? These are costly levee upgrades and costs could be over a billion dollars for the Delta.

Many islands have small residential areas surrounded by mostly agricultural land protected by HMP and/or PL 84-99 levees. The State, through the Department, currently contributes financially to upgrade levees to meet HMP and PL 84-99 standards on islands both with and without residential areas. This improves the protection provided to these areas, although not to the level of FEMA standards. This recommendation could substantially reduce the Department's work to improve the stability of levees in the Delta, since costs to improve levees beyond PL 84-99 reduces the levee miles that can be completed with the existing funds.

There may be some other unintended consequences associated with this policy. For example, most reclamation districts in the Delta have some portions of their levee system below HMP. Based on Table 7-1, an agricultural covered action (such as a new crop storage facility having a water demand component) would not be allowed until the entire levee system was brought up to the HMP levee cross section. This could result in a finding of inconsistency until the district spent a significant sum of money (and could take years) thereby limiting the agricultural viability of that reclamation district.

This becomes even more significant for infrastructure in the Delta. If new or even modifications to an existing infrastructure project (such as a road or a pipeline) are proposed, this policy would require the levees to have at least a PL 84-99 cross-section over the entire island. To bring the Delta levees to PL 84-99 may cost in the billions of dollars and take many years. Therefore, the constructions or rehabilitation of critical infrastructure may be inappropriately postponed. Perhaps a phased approach to implementation of Table 7-1 requirements would be more appropriate.

Flood Management Investment

Page140, line 18

Please replace "risk" with "the likelihood of flooding" since levee modifications can only change the likelihood of flooding and not the consequences.

Page 140, line 27

Insert "in the legal Delta" after "agencies" and before the parentheses. Levee districts in the Marsh are not eligible for Subventions funding.

Page 141, Table 7-1

This policy would appear to effectively prohibit new agricultural covered actions in the Delta until the district's levees meet HMP. For some islands, it could take several years to meet HMP. Consider language that would allow these types of covered actions to be consistent with the Delta Plan if the levee district had a plan to meet HMP in the near term.

The term infrastructure needs additional clarification. Is it intended to mean infrastructure of statewide interest, such as the Mokelumne aqueduct and freeways, or is it intended to also include local infrastructure (such as local roadways, wells, power poles)? All reclamation districts would have some degree of local infrastructure if the term is used loosely enough (since levees in and of themselves are a form of infrastructure). Many islands in the primary zone of the Delta do not meet HMP standards, although there is infrastructure of statewide interest on the islands. With respect to Delta flood protection, consider language to allow interim levee improvement projects (such as a landside berm) that are consistent with meeting a certain levee design criteria (such as PL 84-99) and are an interim step to obtaining the desired design included in the levee district's five year plan.

Consider altering Table 7-1 to acknowledge that residents live in areas protected by levees that do not meet HMP, PL 84-99 or FEMA standards, and upgrading these levees improves the protection. Consider adding a footnote that allows projects that upgrade levees on islands with residential/commercial/industrial areas as a first step to improve the protection provided by the island.

Clarify the meaning of the footnote regarding legacy towns? Do legacy towns have a different standard than other communities?

Page 141, Table 7-1, footnote 'e'

Please insert "including seismic provisions for frequently loaded levees" after "change" and before the period in the last sentence. Also, compliance with these criteria should only be applied to urban and urbanizing areas, as defined in the referenced document.

RR P4, Page 143, lines 18 – 22

While there are standard methods for assessing engineering structures, including levees, this work and funds to accomplish this part of the policy are beyond the

Department's current mission. Implementation of this bullet, in particular, would require a significant program and budget change.

RR P4, Page 143, lines 23 – 24

The work proposed in this part of Policy RR P4 is the responsibility of the local agencies with levees in the Delta. In addition, levee operation and maintenance projects are not "covered activities." (Page 41, lines 17-19. Routine levee maintenance by a reclamation district is statutorily excluded.)

RR P4, Page 143, lines 25 – 26

Project costs are determined by cost estimates and bidding; cost share is currently established by Project Solicitation Packages and project partners are secured by project proponents (local agencies).

RR P4, Page 143, lines 27 – 28

The application process distinguishes between the two programs. Special Projects are awarded based on responses to the Project Solicitation Process and the program guidelines. Projects are not initiated until funds are awarded. Levee maintenance under the Subventions Program is completed during the fiscal year, and the local agency then applies for reimbursement at a 75%/25% (State/local) cost share.

Problem Statement

Page 144, lines 17 & 18

A "coordinated Delta-wide emergency response plan to address [catastrophic] levee failures and flooding" is needed, but this plan needs to address statewide concerns. Government agencies and water districts outside the Delta should also coordinate their actions in response to catastrophic Delta levee failures.

Also, there are difficulties in developing one overall "Delta-wide emergency response plan" because of the various agencies involved (federal, state, local government, and local agencies) and their differing authorities and responsibilities. The Department is currently developing a document as part of the Delta Flood Emergency Program that describes how a flood emergency is responded to under SEMS/NIMS and how a Delta flood emergency is expected to be coordinated.

Emergency Response and Preparedness

Page 143, lines 38 thru 40

The statement regarding water supply disruption is not quite accurate. The consequences of water supply disruption to both the State and federal water supply systems have been considered in nearly all the DWR emergency action plans and reports pertaining to the Delta.

Recommendations

RR R4, page 144, lines 27 - 33

This recommendation in the second bullet should be changed to address the two separate issues: flood emergency response planning/exercise/preparedness (the Department and local flood management agencies) and mass evacuation (CalEMA and local emergency response agencies). The Department has no authority for emergency evacuations.

RR R4, page 144 lines 38 thru 41

The emergency stockpiles DWR purchased and are currently maintaining are for Delta emergencies. This rock is of a particular size and it is suited for a narrow set of circumstances.

The process of "cannibalizing" of over-reinforced levees by levee districts, private parties, and the Department during times of distress and emergency may be problematic. The location of the reinforced levees must be carefully considered with respect to flood risk before they are created. There are more sure ways of creating material stockpiles out of harm's way.

RR R7 Page 146 - 147, lines 34 – 36 and lines 1 -20, respectively

This recommendation is to develop a Delta Flood Risk Management assessment District. Additional information on the duties, responsibilities and authorities of this proposed district should be provided in the next version.

RR R8, Page 147, line 41

There should be more than one recommendation given to help deal with subsidence. Mention should also be made concerning continued and perhaps even expanded federal and State support of scientific research and pilot projects to help overcome and reverse subsidence. Also, consider adding the following sentence to the

recommendation: "Where appropriate, State agencies should implement subsidence-reversal or reduction programs on publically-owned land."

Chapter 8 Protect and Enhance the Unique Cultural, Recreation, Natural Resources, and Agricultural Values of the California Delta as an Evolving Place

General Comment

This section or another section in the Delta Plan should recognize the Governor's Executive order S-14-08 on renewable energy as it pertains to potential development of wind or solar projects in the Delta. The Executive Order established a state policy adopted by the California Air Resources Board as the Renewable Electricity Standard, which requires Utilities to meet 33 percent of California's electrical needs with renewable energy sources by 2020. In meeting this goal, State agencies, including DWR, entered into a Memorandum of Understanding with the California Energy Commission (CEC) on December 15, 2010 to 1) set forth the intent to further implement the Governor's Executive Order S-14-08 and the 33 percent Renewable Electricity Standard, 2) cooperate in identifying potential locations for Energy Generation Infrastructure within the State-owned right of way or on State-owned facilities, and 3) establish expectations, roles, and responsibilities of the Agencies regarding the development and implementation of Energy Generation Infrastructure.

The CEC is the lead coordinating agency in this effort and has published a report on Developing Renewable Generation on State property. The report identifies the Delta as an area with high sustainable winds to develop wind energy, including islands currently owned by DWR. Even though renewable energy projects have the potential to generate long-term funding for the Delta and have Statewide benefits such as reducing green house gases (climate change), they also have potential significant compatibility issues with ecosystem restoration projects. The Delta Plan should include provisions that it will seek to accommodate the Governor's renewable energy policy and the CEC MOU.

Economic Sustainability

Page 156, line 40

The statement "Plans are underway to encourage economic growth in the Delta region ..." is vague. At least one such plan should be cited here.

Page 159, Figure 8-2

The map is taken from a document published in 2010. But the map does not display agricultural land use that existed in 2010. What year or years does the map represent? Consider revising this figure for the fifth version of this plan.

Performance Measures

Page 163, line 3

Is a January 1, 2012, deadline for a Delta NHA reasonable?

Page 163, lines 13 & 14

The text states that "Annual gross revenue from agriculture in the Delta will be maintained ..." Is that in terms of nominal, or inflation-adjusted, revenues? It may not be feasible or desirable to try to maintain the Delta's gross agricultural revenues in real terms, if there is conversion of Delta farmland to habitat lands. Also, the recent economic difficulties and declines experienced by several high-value components of Delta agriculture, such as asparagus and dairies, would impact this performance measure.

Page 163, lines 21 & 22

Maintaining recent "trends in acreage of annual crops, orchards, rice, and vineyards" may not "protect the Delta's agricultural values." First, some of those trends may be downward. Second, trends in real gross crop revenues are more important than trends in crop acreages.

Page 163, lines 24 & 25

The text states that "Acres of undeveloped open space will be maintained in the future rather than converted to other uses." Such lands could be allowed to convert to agricultural, recreational, or wildlife habitat lands.

Chapter 9 Finance Plan Framework to Support Coequal Goals

Background

Page 172, lines 29 & 30

The cost of $10 million "to develop a [flood protection] benefit assessment plan for the Delta" appears high.

FP R4, page 172, lines 37 – 39

One or two examples of possible "Long-term stable funding" sources should be given.

Attachment 1, Appendix A The Delta Stewardship Council's Role Regarding Conveyance

The statement is made that "the Council has the authority to regulate conveyance improvements," and, "the Council has the authority to recommend to BDCP preferred conveyance options BDCP should evaluate." DWR disagrees with these statements because the Delta Reform Act does not provide authority for this regulatory role.

The authority cited for regulating conveyance improvements is section 85304 of the Delta Reform Act which states, "the Delta Plan shall promote options for new and improved infrastructure relating to water conveyance in the Delta, storage systems, and for operation of both to achieve the coequal goals." The Department notes that this reference based on "shall promote" does not equate to authority to regulate. "Promote" means to support, sponsor, encourage, advocate, endorse, or help; but not to regulate.

The Department requests the Council to keep in mind the importance of completing the BDCP in a timely manner and if the Council proposes additional conveyance options for the Department to evaluate at this time or in the near future the Department would require additional time to complete the analysis and BDCP. In the 3rd Draft Delta Plan the timeline was through December 2014 for completion of the BDCP and environmental document.

Also the Appendix states BDCP plans to have a public draft of the EIR/EIS by the end of 2011. The text should state that an administrative draft BDCP is expected by the end of this year and a public draft of the BDCP and EIR/EIS is expected in 2012. The Council's proposed date of January 2014 for the process to be completed is not realistic

considering the number of permits required and the need of permitting agencies for information from the BDCP EIR/EIS.

The Department suggests removing the reference to the BDCP's "failure" if it does not meet the time line expected by the Council.

Water Use 2004

2004			Hydrologic Regions																			
Dedicated Uses and Supplies not including Instream (Instream, Wild and Scenic, and Required Delta Outflow) Dedicated Water in TAF	Statewide		North Coast 1,348.2		San Francisco Bay 1,399.4		Central Coast 1,600.8		South Coast 5,271.5		Sacramento River 10,930.5		San Joaquin River 8,636.8		Tulare Lake 11,976.6		North Lahontan 545.5		South Lahontan 665.3		Colorado River 4,800.7	
Uses	**MAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**	**TAF**	**Percent**
Total Urban Use	9.5	20%	156.5	12%	1,238.6	89%	328.9	21%	4,433.4	84%	917.8	8%	640.3	7%	847.0	7%	40.4	7%	277.9	42%	660.9	14%
Total Agricultural Use	36.1	77%	890.6	66%	156.0	11%	1,271.5	79%	806.9	15%	9,455.4	87%	7,504.9	87%	11,005.5	92%	483.6	89%	387.4	58%	4,109.5	85%
Total Managed Wetlands Use	1.6	3%	301.1	22%	4.8	0%	0.4	0%	31.2	1%	557.3	5%	491.6	6%	124.1	1%	21.5	4%	-	0%	30.3	1%
Total Non-Instream Uses	47.2	100%	1,348.2	100%	1,399.4	100%	1,600.8	100%	5,271.5	100%	10,930.5	100%	8,636.8	100%	11,976.6	100%	545.5	100%	665.3	100%	4,800.7	100%
Supplies																						
Surface Water																						
Local Deliveries	18.9	40%	382.2	28%	270.7	19%	81.4	5%	142.0	3%	568.7	5%	2,799.8	32%	1,618.3	14%	314.5	58%	42.0	6%	6.0	0%
Local Imported Deliveries	0.8	2%	2.0	0%	509.3	36%	-	0%	227.9	4%	15.0	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Colorado River Deliveries	4.8	10%	-	0%	-	0%	-	0%	1,099.8	21%	-	0%	-	0%	-	0%	-	0%	-	0%	3,689.1	77%
CVP Base and Project Deliveries	4.5	10%	-	0%	101.7	7%	93.8	6%	-	0%	4,631.9	42%	1,458.3	17%	1,977.0	17%	-	0%	-	0%	-	0%
Other Federal Deliveries	0.7	1%	304.2	23%	42.2	3%	56.9	4%	0.4	0%	258.4	2%	2.6	0%	-	0%	-	0%	-	0%	-	0%
SWP Deliveries	3.2	7%	-	0%	176.5	13%	37.6	2%	1,839.8	35%	24.5	0%	14.2	0%	1,020.9	9%	-	0%	89.9	14%	13.2	0%
Groundwater Withdrawal *	10.5	22%	390.7	29%	264.1	19%	1,309.3	82%	1,476.3	28%	2,923.7	27%	3,072.6	36%	7,187.4	60%	151.9	28%	448.0	67%	461.0	10%
Reuse/Recycle	3.8	8%	269.1	20%	34.9	3%	21.8	1%	485.3	9%	2,508.3	24%	1,289.3	15%	173.0	0%	79.1	14%	85.4	13%	631.4	13%
Total Supplies	47.2	100%	1,348.2	100%	1,399.4	100%	1,600.8	100%	5,271.5	100%	10,930.5	100%	8,636.8	100%	11,976.6	100%	545.5	100%	665.3	100%	4,800.7	100%

* Statewide - uses net GW extraction. Regional uses total GW extraction - includes deep percolation (a type of reuse